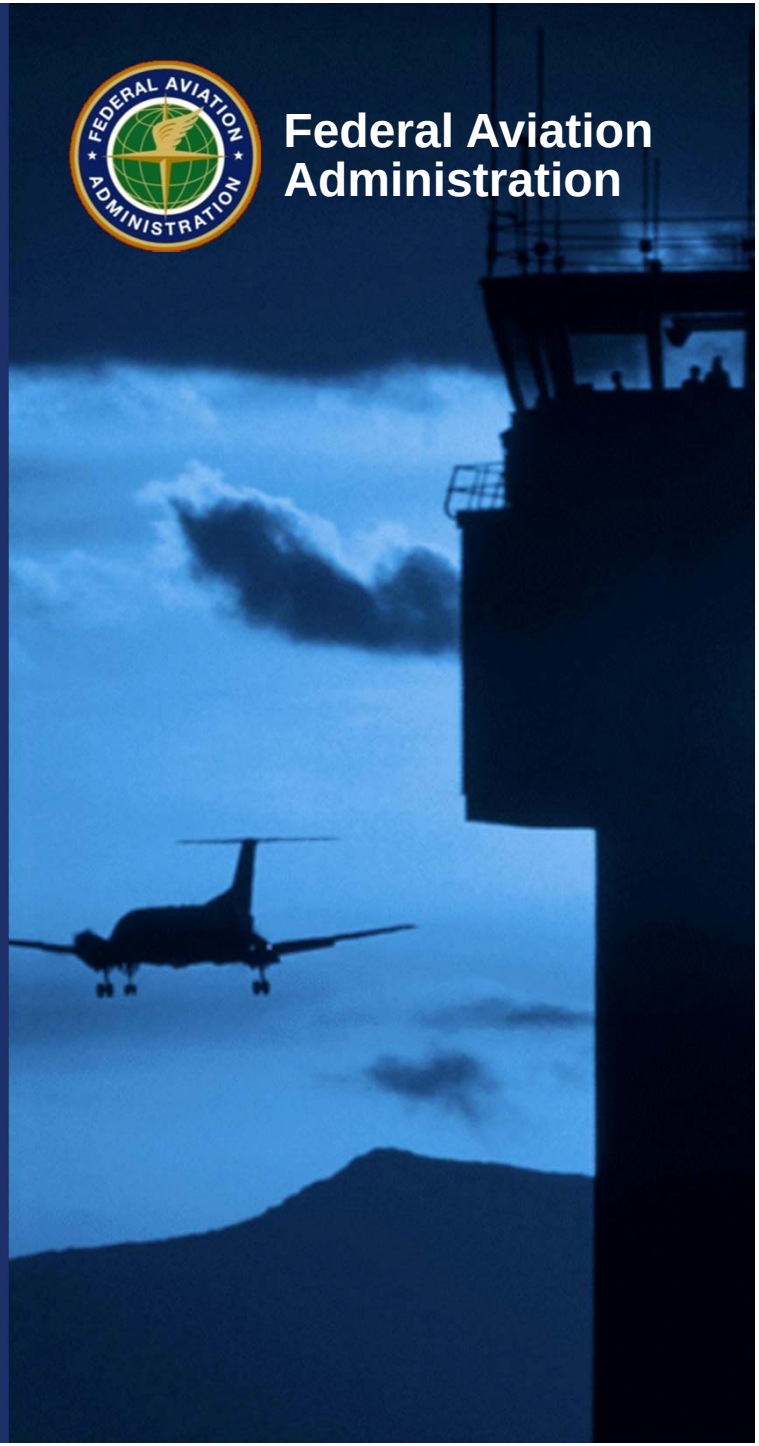
AMHS Implementation Workshop 2013

FAA Cutover and Transition Process

Dominican Republic

September 24-26, 2013



Federal Aviation Administration

Cutover and Transition Process – Key Issues

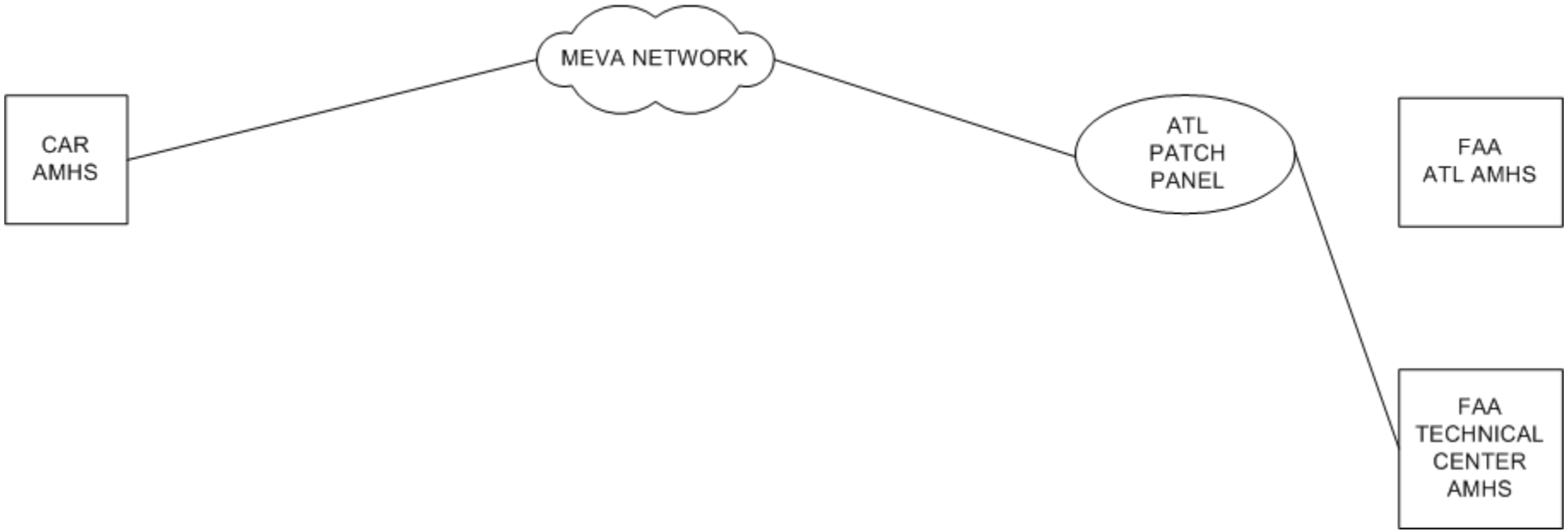
- ✓ Connection during Interop Test
- ✓ Connection after Interop Test
- ✓ AMHS Cutover
- ✓ Cutover Procedure
- ✓ AFTN-AMHS Dual Feed

Connection During Interop Test

- ✓ During Interoperability Testing, the pre-operational circuit is bridged from the Atlanta Operational Center to the Atlantic City Test Center.
- ✓ Allows much of the operational circuit to be used during test.
  - Testing does not require an additional circuit
  - Majority of network connectivity is verified

Connection <u>During</u> Interop Test

✓ Connection is with FAA's test AMHS system

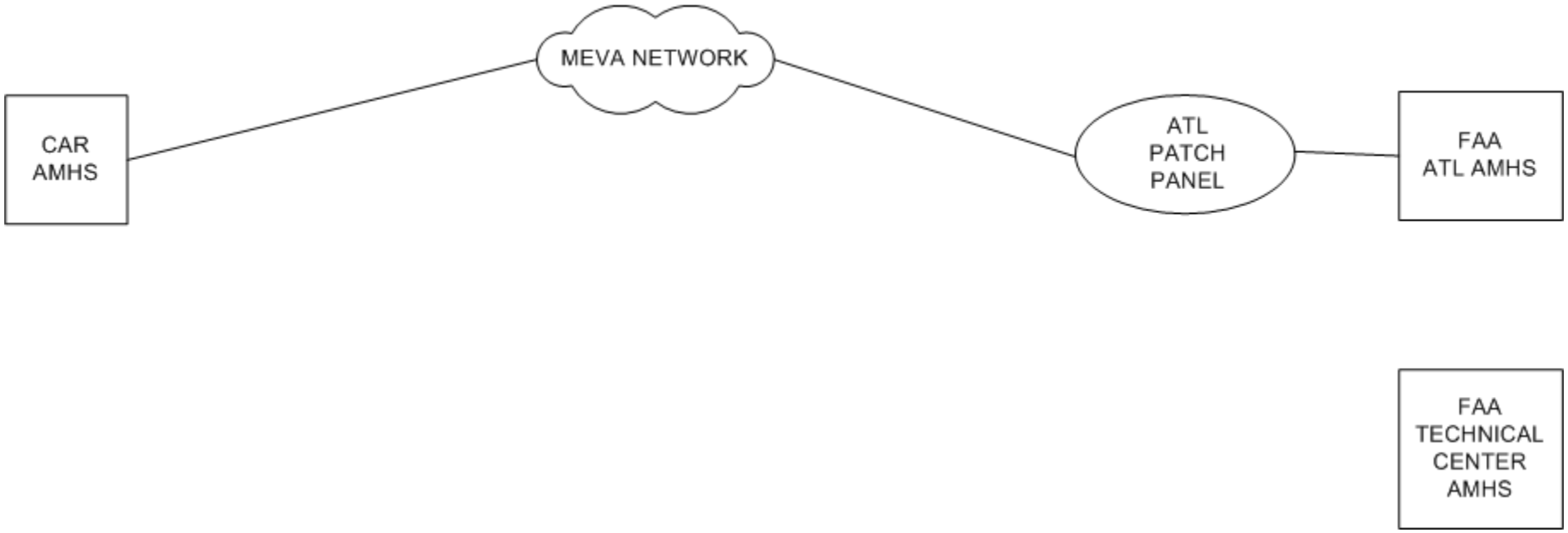


Connection After Interop Test

- ✓ Following the conclusion of Interoperability Test, the bridge is removed and the circuit is established with Atlanta Operational Center.
- ✓ Some additional network testing is required.
  - This is done shortly before cutover
  - Requires participation from
    - AMHS representatives from both countries
    - Network technicians from both countries
    - Telecom vendor
- ✓ End-to-end connectivity is verified.

Connection After Interop Test

✓ Connection is with FAA ATL Operational AMHS system



AMHS Operational Cutover

- ✓ So, where are we?
  - Interoperability testing complete
  - Circuit validated from end-to-end
- ✓ Then what's left?
  - Cutover of operational AMHS systems
- ✓ What does that involve?
  - Let's see…..

AMHS Operational Cutover

What do we mean by “Cutover” in this context?

- ✓ The migration of operational AFTN to operational AMHS between two states
- ✓ The FAA has been using a phased approach for this process, and have found it to be a useful and safe method of transition (more on that shortly)

AMHS Cutover Procedure

- ✓ AMHS Cutover Procedure
  - A detailed procedure that defines the steps involved in making the AMHS connection active
  - Initial draft is provided by FAA; subsequent development is bi-lateral
  - Developing the procedure has been ongoing for quite a while, most likley begun while interop test is in progress
  - Drills down to a very detailed level of action and expected response (crucial, since dealing with operational data)

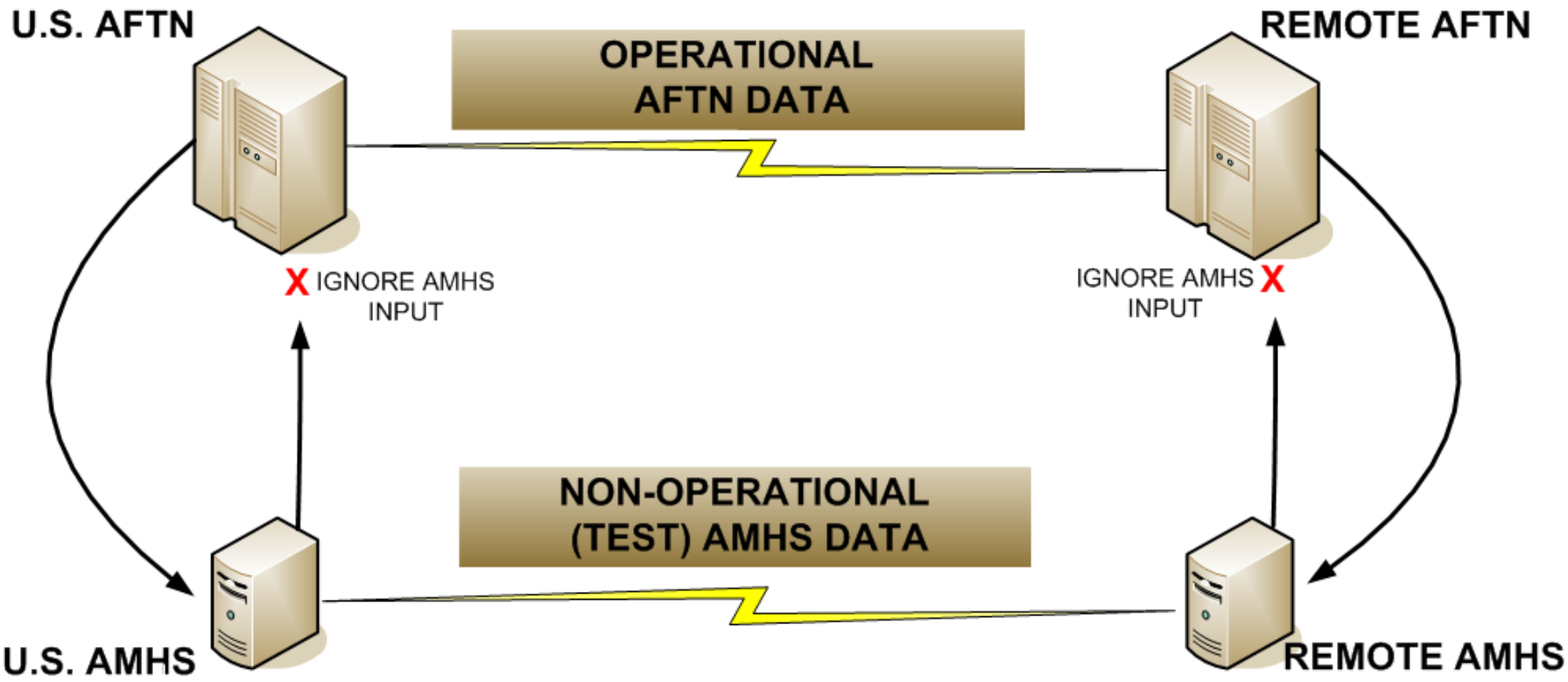
AFTN-AMHS Dual Feed

- ✓ AFTN-AMHS Dual Feed
  - A two phased approach to achieving operational AMHS cutover
  - Phase 1
    - ➢ AFTN data continues as the operational data
    - ➢ AFTN data is also sent to AMHS via AMHS Gateway
    - ➢ This AMHS data is sent to remote AMHS, but the data is discarded upon receipt
  - Phase 2
    - ➢ Operational AFTN data is stopped
    - ➢ AMHS data becomes the operational data

AFTN-AMHS Dual Feed

- ✓ What does Phase 1 Dual Feed look like?
- ✓ Let's see…….

AFTN-AMHS Dual Feed (Phase 1)



AMHS TRAFFIC WILL NOT ENTER OPERATIONAL AFTN STREAM AT EITHER END ("IGNORED" BY EACH AFTN)

AFTN-AMHS Dual Feed

What are the benefits?

- ✓ Provides “operational” exercise of AMHS
- ✓ Allows opportunity for shakeout of
  - AMHS system
  - Addressing information
  - Configuration
- ✓ Training & Troubleshooting
  - Operational staff should treat the AMHS data as “real”, and respond to system events accordingly
  - Troubleshooting procedures can be refined prior to operation

AFTN-AMHS Dual Feed

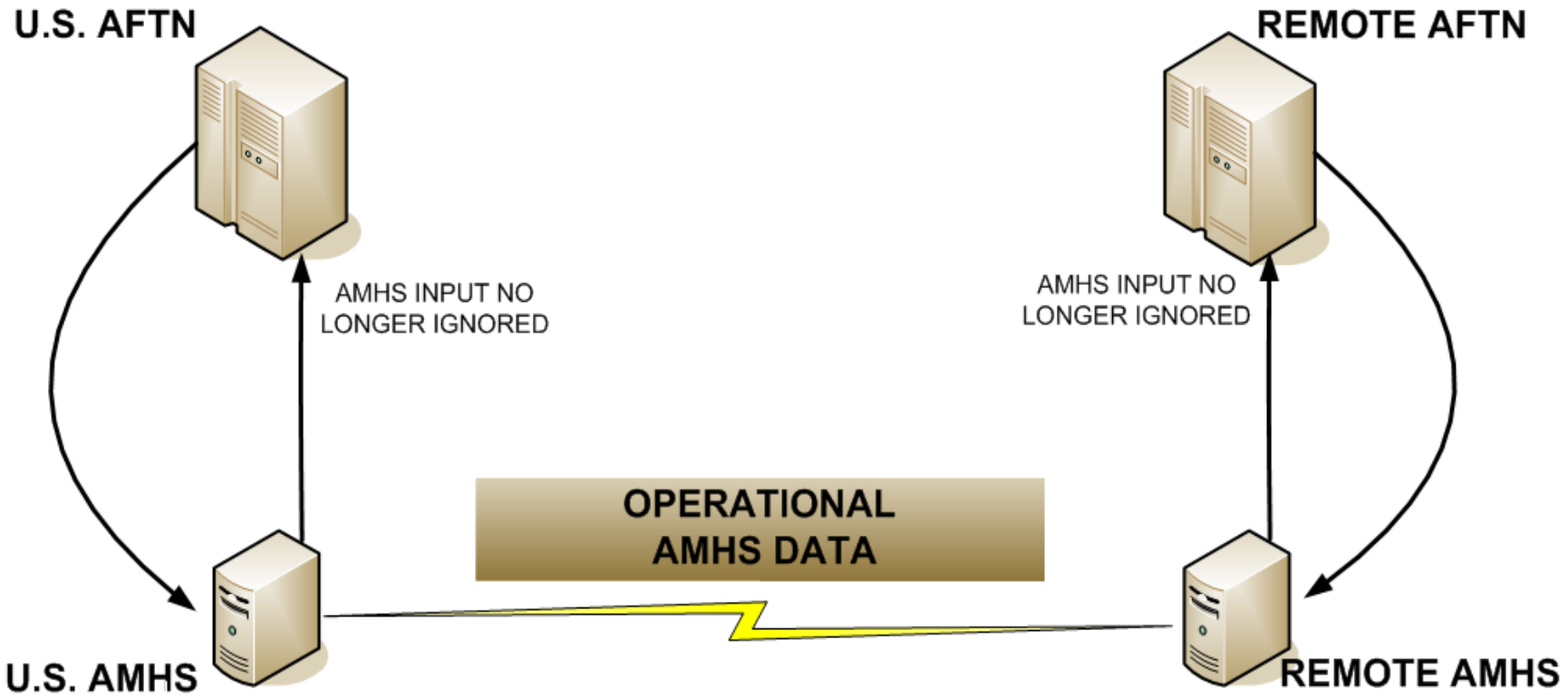
What are the benefits?

- ✓ AMHS feed can be stopped very easily if required
- ✓ Transition to operational AMHS tends to be uneventful after running the dual feed

AFTN-AMHS Dual Feed

- ✓ What happens when the Phase 1 Dual Feed period is over?
  - The AMHS data becomes the operational message flow
  - This is “Phase 2” in the cutover process
- ✓ How do we get there?
  - Back to the Cutover Procedure: Phase 2 is executed while the Phase 1 dual feed is running
  - Again, a step-by-step process
- ✓ What does it look like now?
  - See next page….

AFTN-AMHS Dual Feed (Phase 2)



OPERATIONAL AFTN STREAM STOPPED;
AMHS NO LONGER "IGNORED" BY EACH AFTN